INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/14243

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl[7] C12N15/09, C12N5/10, A61P3/10, C12P21/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl[7] C12N15/09, C12N5/10, A61P3/10, C12P21/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE, BIOSIS/WPI (DIALOG)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Shimon Efrat et al., Cell replacement therapy for type 1 diabetes, Trends in Molecular Medicine, 2002, Vol.8, No.7, pages 334 to 339	1-4
X	Patrick Salmon et al., Reversible immortalization of human primary cells by lentivector-mediated transfer of specific genes, Molecular Therapy, 2000, Vol.2, No.4, pages 404 to 414	1-4
X	Tanya L. et al., Telomerase activity is sufficient to allow transformed cells to escape from crisis, Molecular and Cellular Biology, 1999, Vol.19, pages 1864 to 1870	1-4

[X] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 January, 2004 (29.01.04)	10 February, 2004 (10.02.04)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/14243

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Jiyue Zhu et al., Telomerase extends the lifespan of virus-transformed human cells without net telomere lengthening, Proc.Natl.Acad.Sci., 1999, Vol.96, pages 3723 to 3728	1-4
A	Karen A. et al., Reversible immortalization of mammalian cells mediated by retroviral transfer and site-specific recombination, Proc.Natl.Acad. Sci., 1996, Vol.93, pages 8971 to 8976	1-4
A	Michael J. et al., Conditional immortalization of freshly isolated human mammary fibroblasts and endothelial cells, Proc.Natl.Acad.Sci., 2001, Vol.98, pages 646 to 651	1-4
A	Barry R. et al., Immortalisation of human ovarian surface epithelium with telomerase and temperature-sensitive SV40 large T antigen, Experimental Cell Research, 2003, Vol.288, pages 390 to 402	1-4

国際調査報告	国際出願番号　ＰＣＴ／ＪＰ０３／１４２４３

A.　発明の属する分野の分類（国際特許分類（ＩＰＣ））

Int Cl⁷ C12N15/09, C12N5/10, A61P3/10, C12P21/02

B.　調査を行った分野

調査を行った最小限資料（国際特許分類（ＩＰＣ））

Int Cl⁷ C12N15/09, C12N5/10, A61P3/10, C12P21/02

最小限資料以外の資料で調査を行った分野に含まれるもの

国際調査で使用した電子データベース（データベースの名称、調査に使用した用語）

MEDLINE, BIOSIS／WPI(DIALOG)

C.　関連すると認められる文献

引用文献のカテゴリー＊	引用文献名　及び一部の箇所が関連するときは、その関連する箇所の表示	関連する請求の範囲の番号
X	Shimon Efrat et al., Cell replacement therapy for type 1 diabetes, Trends in Molecular Medicine, 2002, Vol.8, No.7 p.334-339	1-4
X	Patrick Salmon et al.,Reversible immortalization of human primary cells by lentivector-mediated transfer of specific genes, Molecular Therapy, 2000, Vol.2, No.4, p.404-414	1-4

☒ Ｃ欄の続きにも文献が列挙されている。　　☐ パテントファミリーに関する別紙を参照。

＊　引用文献のカテゴリー
「Ａ」特に関連のある文献ではなく、一般的技術水準を示すもの
「Ｅ」国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの
「Ｌ」優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献（理由を付す）
「Ｏ」口頭による開示、使用、展示等に言及する文献
「Ｐ」国際出願日前で、かつ優先権の主張の基礎となる出願の日の後に公表された文献
「Ｔ」国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの
「Ｘ」特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの
「Ｙ」特に関連のある文献であって、当該文献と他の１以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの
「＆」同一パテントファミリー文献

国際調査を完了した日	国際調査報告の発送日
２９．０１．２００４	10.2.2004

国際調査機関の名称及びあて先	特許庁審査官（権限のある職員）	４Ｂ	３２２７
日本国特許庁（ＩＳＡ／ＪＰ） 郵便番号１００－８９１５ 東京都千代田区霞が関三丁目４番３号	田中　耕一郎 電話番号　０３－３５８１－１１０１　内線　３４８８		

国際調査報告	国際出願番号　ＰＣＴ／ＪＰ０３／１４２４３

C（続き）．　関連すると認められる文献

引用文献のカテゴリー＊	引用文献名　及び一部の箇所が関連するときは、その関連する箇所の表示	関連する請求の範囲の番号
X	Tanya L et al., Telomerase activity is sufficient to allow transformed cells to escape from crisis, Molecular and Cellular Biology, 1999, Vol.19, p.1864-1870	1-4
A	Jiyue Zhu et al., Telomerase extends the lifespan of virus-transformed human cells without net telomere lengthening, Proc. Natl. Acad. Sci., 1999, Vol.96, p.3723-3728	1-4
A	Karen A. et al., Reversible immortalization of mammalian cells mediated by retroviral transfer and site-specific recombination, Proc. Natl. Acad. Sci., 1996, Vol.93, p.8971-8976	1-4
A	Michael J. et al., Conditional immortalization of freshly isolated human mammary fibroblasts and endothelial cells, Proc. Natl. Acad. Sci., 2001, Vol.98, p.646-651	1-4
A	Barry R. et al., Immortalisation of human ovarian surface epithelium with telomerase and temperature-sensitive SV40 large T antigen, Experimental Cell Research, 2003, Vol.288, p.390-402	1-4